

CA1
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Government
Publication

FACT SHEET DOCUMENTATION

CAI
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- F11

The Department announces a new poster of Spectrum Allocations in Canada, resulting from the 1979 World Administrative Radio Conference in Geneva.

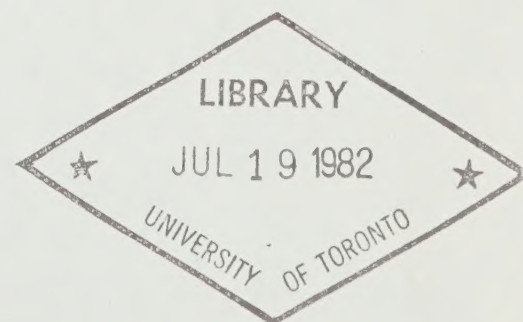
Intended as a companion to the Department's recently published Table of Frequency Allocations, the poster depicts the spectrum frequency bands allocated to radio services in Canada. Copies of the poster may be obtained for \$2.50 from:

Authorized Bookstore Agents

or

Canadian Government Publishing Centre
Supply and Services Canada
Ottawa, Canada
K1A 0S9

Please quote catalogue number Co22-33/1982.



FS-82-15




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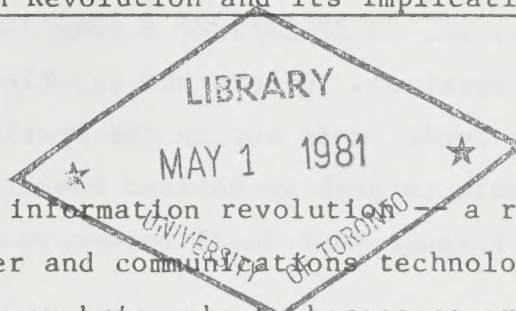
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The Information Revolution and its Implications for Canada



We are in the midst of an information revolution -- a revolution brought about by the marriage of computer and communications technologies. The move to an information-based economy may bring about changes as great as those created by the industrial revolution in the nineteenth century. With it will come unprecedented economic opportunities and challenges.

The Department of Communications has published a study which outlines policies to help Canada meet the challenges of the high-technology age and to capture our share of Canadian and international markets for advanced communications products.

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The study, The Information Revolution and its Implications for Canada, by Shirley Serafini and Michel Andrieu, examines: the emergence of an information economy; recent technological advances; policy concerns; and the Canadian and foreign experiences. It also outlines a basic policy strategy designed to help turn the information revolution to Canada's advantage.

The Information Revolution is part of a series issued by the Department of Communications to inform and to stimulate discussion on communications issues.

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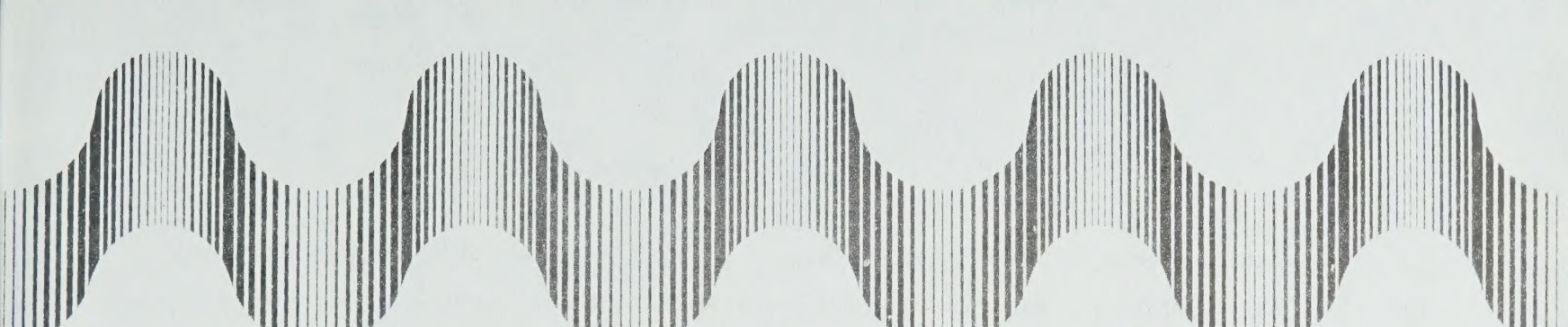
How to order:

The publication is available in English or French from: Canadian Government Publishing Centre, Supply and Services Canada, Hull, Québec K1A 0S9 (Tel: (819) 994-3475), for \$4.95 a copy (\$5.95 outside Canada).

Please specify cat. no. CO 22-28/1981 E (English version) or CO 22/28/1981 F (French version). Orders are payable in advance by cheque or money order, in Canadian funds, made out to the Receiver General for Canada. The study is also available through authorized bookstore agents of the Government of Canada or through your local bookstore.

April 6, 1981

FS-81-04



FACT SHEET DOCUMENTATION

La Révolution de l'information et ses significations pour le Canada

Nous sommes au coeur d'une révolution de l'information amenée par la fusion de l'informatique et des télécommunications. La conversion à une économie informatisée peut entraîner des bouleversements aussi grands que ceux qu'a provoqués la révolution industrielle du XIX^e siècle. Elle ouvrira de nouvelles avenues à notre économie, lui présentera des défis sans précédent.

Le ministère des Communications a publié une étude, où sont exposées des lignes de conduite qui permettront à la société canadienne de relever les défis de l'ère de la haute technicité et à l'industrie nationale de se tailler une place sur les marchés canadien et étranger des produits de communication poussés.

Intitulé La Révolution de l'information et ses significations pour le Canada, cet ouvrage de Mme Shirley Serafini et de M. Michel Andrieu porte sur la naissance d'une économie informatisée, les derniers progrès de la technique, les considérations politiques qu'ils engendrent et la situation au Canada et à l'étranger. Il expose également dans ses grandes lignes une façon de mettre la révolution au service du Canada. Cet ouvrage s'inscrit dans une série de rapports publiés par le Ministère, afin d'informer la population et de stimuler le débat sur les questions relatives aux communications.

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On peut, moyennant \$4.95 l'exemplaire (\$5.95 à l'étranger), se procurer cet ouvrage, en français ou en anglais, à l'adresse suivante: Centre d'édition du gouvernement du Canada, Approvisionnements et Services Canada, Hull (Québec) K1A 0S9, (Tél.: (819) 994-3475).

Prière de préciser le numéro du catalogue CO 22-28/1981 F (version en français) ou CO 22-28/1981 E (version en anglais) et de payer à l'avance par chèque ou mandat de poste, en devises canadiennes, à l'ordre du receveur général du Canada.

On peut également se procurer cet ouvrage chez les libraires agents agréés ou chez son libraire.

le 6 avril 1981

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The Office of the Future

What is the office of the future?

The office of the future is an automated office, one in which electronic products and sophisticated communications terminals replace the electro-mechanical products which exist today. The products familiar in today's office -- the typewriter, the photocopier, the filing cabinets stuffed with paper -- are on their way out. They will be replaced by equipment which can perform a multitude of functions.

The communicating word processor, for example, is a forerunner of this new equipment. With it, a text can be typed into a computer memory and stored until recalled for corrections, additions or deletions. When the final text is completed, it can be printed locally or sent to another communicating word processor for display on a remote video screen. This technology exists now. It exists because the demands for improvements in office productivity are not being met with a typewriter, a filing cabinet, a photocopier and an existing message service -- even with several clerks and secretaries running from one device to another. One communicating word processor can triple the output of a single typist.

With these kinds of productivity gains, new office products, services and systems are being introduced daily. The full force of the so-called information

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revolution probably will be felt in the office before anywhere else. Since half the North American labor force works in offices, the economic and social implications of the automated office are enormous and wide-ranging.

When the necessary elements are brought together, the office of the future will be seen as many different things: To Canadian industry, a means to remain internationally competitive; to a manager, a tool to streamline the decision-making process; to an office worker, a source of information, an electronic memory, a conduit for communications. To all office workers, including management, it will likely mean a need to develop keyboard skills, new attitudes and effective procedures.

Why automation?

Automation is no stranger to offices; it first appeared about 100 years ago in the form of the typewriter and the telephone. In the case of these two venerable examples, automation was welcomed because it made possible better and more efficient communications. The same is true for the hardware and systems that will, when taken together, form the office of the future.

The rationale behind automating the office is to improve the productivity and efficiency of the office, through the integration of various communications media. Communications -- the generation and handling of documents, messages, data and images -- now account for nearly two-thirds of office labor costs.

The integration of information processing and communications devices into multifunctional machines is to expected facilitate the transfer of information from one medium to another, to enable a more effective sharing of machine resources among the work force and to speed communications.

An integration of existing technologies

The office of the future will likely be composed of four major electronic products. Their equivalents may be found in any present-day office. The telephone, the typewriter, the photocopying machine and the filing cabinet will all be superseded in the office of the future.

- 1) At the hub of the automated office is the "intelligent" Private Automatic Branch Exchange (PABX) as a resource shared by all workers. The "intelligent" PABX is a device that permits its users to switch, store and transmit voice, data, messages and images. It will handle dictation and perform a multitude of new functions.
- 2) The typewriter will be replaced by a keyboard video display terminal with myriad capabilities. In addition to doing everything a typewriter does, this terminal -- which has been dubbed a multifunctional work station -- will process data, text, pictures, documents and graphics. The work station will provide its users with electronic mail and document management, word processing, communications with other such work stations and access to computer data bases and data processing. The work station will also serve as a sophisticated calculator.

Such user-friendly and user-programmable devices are the primary instruments that will enable the office to be automated. It will allow the user to automate in an evolutionary manner by focussing on his or her most important problem first and by progressing into subsequent stages at his or her own pace.

The expected impact is a reduction in demand for single purpose devices such as data entry systems, stand-alone desk computers and word processors.

- 3) The most revolutionary component of the office of the future will replace existing photocopying machines. The "intelligent" copier/printer integrates existing but distinct machines: an electro-optical scanning unit, a microprocessor, data storage device and laser printer. In combination with the microprocessor and data storage, the intelligent copier/printer has several functions. These include those of the heavy duty typing station, optical character reader and the unattended facsimile device. This latter capability permits, for example, the transmission and reception of electronic mail.
- 4) The most pressing need in today's office is to come to terms with the filing system. An effective filing and retrieval system could generate savings far in excess of those possible through the use of word processors. The problem is that the flexible, practical, reliable and secure document management system still awaits its invention. Considerable progress has been made by the National Research Council towards the development of such a system.

Who needs the office of the future?

The short answer is anybody who wants to stay competitive.

In the last 30 years, Canadian purchases of goods and services for the offices have increased 25 fold, reaching \$6 billion in 1978, while office efficiency has declined. Over the same period, new jobs created in the office labor force have outpaced job creation in the total labor force by a factor of two. Annual national expenditures for white collar salaries and wages reached the \$70 billion mark in 1978. In the banking and financial institutions, for example, office labor costs represent 90 per cent of total business costs; in the construction industry, 30 per cent.

Steady improvements in office labor productivity are essential to bring spiralling office expenditures under control.

However, the present focus of productivity improvements on clerical functions will almost certainly be broadened to include administrators, professionals and managers. Increased productivity should have the effect of shifting human office activities into higher skilled work by automating repetitive and monotonous activities currently performed at every level of the organizational hierarchy.

A cost-effective application of office automation is expected to have a major impact on the competitive strength of the individual enterprise and, collectively, on the strength of our national economy.

Does office efficiency mean fewer jobs?

Office automation implies ultimately a complete restructuring of the work undertaken in the office, a redistribution of work between people and machines and a gradual disappearance of physical distance as a barrier to communications. Consequently, the nature of the work performed by the typical office worker, the role of the worker within the organization, and even the structure of the organization should be expected to change drastically during the 1980s.

Office automation, over time, will affect the jobs of 4.8 million Canadians, about half of the existing labor force, who now work in offices. But history shows that while the new tools of technology have displaced a number of people, the resulting opportunities for new job creation have outpaced the termination of jobs.

Many employees are worried about office automation. Numerous strikes in recent times have resulted from the introduction of new automated equipment without adequate consultation with employees. User acceptance is the most critical factor in any form of automation. The results of past failures to consider human behavior in organizations are in evidence everywhere. People are and always will be the most important element in the office. The motivation, needs and attitudes of the office labor force must be understood before any attempt at automation is made.

One of the objectives of the Office Communications Systems program in the Department of Communications is to study the various impacts of office automation.

But the real "killer" of Canadian jobs is lost business opportunities. If Canadian entrepreneurs do not come together to design, produce and market products for the office of the future which are competitive in price, quality and performance to those made by other nations, industry will die and jobs will disappear.

How far in the future is the electronic office?

Multifunctional work stations, one of the four key elements in the office of the future, are expected to penetrate the Canadian market in significant numbers in this decade. In 1978, some 250,000 forerunners of these stations -- word processors -- were installed in Canada. It is estimated that, by 1985, there will be 500,000 work stations in offices throughout Canada; one million by 1990 and 2.5 million by 1995.

In the United States, the market for work stations is expected to be for about 28 million units by the early 1990s.

Almost every product or service identified for the office of the future is currently under development by Canadian-based firms in one way or another. The goal now is to translate Canadian technological leadership into sound commercial success, meaningful sales revenues, jobs, exports and profits.

Keeping Canada's offices of the future Canadian

It is desirable to have a Canadian-based industry to develop, produce and market office automation products and services which will be competitive in international markets. This will most likely be a hotly contested marketplace but the alternative to meeting this challenge will be a potential \$4-5 billion trade deficit in electronic products in the mid 1980s and greater unemployment.

Canadian industry has already taken preliminary steps toward presenting an organized front to meet the challenges presented by this convergence of technology, and a number of Canadian companies are actively involved. In addition, the Canadian Advanced Technology Association (CATA), an association of rapidly growing, predominantly electronic, Canadian-owned high technology firms, is organizing its membership to respond to the office of the future opportunity.

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Recent Publications of the Department of Communications

The following recent publications of the Department of Communications are available to the public in limited quantity. To order a copy or for further information, please contact Information Services, 300 Slater Street, Ottawa, Ontario K1A 0C8.

<u>PUBLICATION</u>	<u>1977</u>	<u>LANGUAGE</u>
- <u>Telidon Reports, No. 3</u> Newsletter updating current Canadian and international developments dealing with Telidon.		English or French
- <u>Atlantic Film/Video Industry Task Force Report</u> Co-chairmen Finlay MacDonald, Barney Dobbin. Commissioned by the Minister. Volume I proposes a model for pay TV in order to develop new Canadian program markets. Volume II provides inventory of Atlantic Canada production resources.		English (French précis available)

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PUBLICATIONS

VERSION DISPONIBLE

- Les communications et les handicapés physiques:
analyse documentaire suivie de quelques éléments de
solution, par J.R. Lucyk.
Français ou
anglais

- Service de lecture à la radio pour les aveugles et
les handicapés visuels
par J.R. Lucyk.
Français ou
anglais

- La télévision et les déficients auditifs
par J.R. Lucyk.
Français ou
anglais

- Modulation
Bulletin bimestriel publié par le ministère
Bilingue
des Communications.

- En quête
Bulletin trimestriel de renseignements et
Bilingue
d'opinions sur les communications.

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Le 26 janvier 1981

DO-81-01

PUBLICATION

LANGUAGE

- 7 - Competitive Procedures for Broadcasting-
Renewal and Transfers
by Robert E. Babe and Philip Slayton.
Prepared for the Department of Communications,
study examines issue of competitive appli-
cations for renewal, transfer of broadcasting
licences under the Broadcasting Act.
English
(French précis
available)
- 120 - ✓ The 1979 World Administrative Radio Conference:
International Negotiations and Telecommunications
Policy
by Brian Segal.
Assesses Canadian participation in the 1979
WARC and interprets likely effect of outcome on
domestic communications policy.
Bilingual
- 1 - Technology Transfer by Department of Communications:
A Study of Eight Innovations, 1980.
This MOSST background paper is a joint project of the
Department of Communications and the Ministry of State
for Science and Technology.
English or French
- 1 Research and Development 1978-79
Describes Department of Communications research,
lists space and research sector managers, budgets
and proposed budgets.
English or French

- Règles intéressant la concurrence dans le secteur de la radiotélédiffusion. Renouvellement et transferts par Robert E. Babe et Philip Slayton.

Anglais

Résumé français

disponible

transfert des licences en vertu de la loi sur la radiodiffusion. Cette publication fut rédigée pour le ministère des Communications.
- Conférence administrative mondiale des radio-communications de 1979: négociations internationales et télécommunications nationales

par Brian Segal.

Bilingue

Une évaluation de la participation canadienne à la CAMR de 1979, dans laquelle on interprète l'incidence probable des résultats de cette conférence eu égard à celle sur la politique des communications au pays.
- Transfert de technologie par le ministère des communications: étude de huit innovations, 1980

Un document d'information technique qui résulte d'un projet conjoint du ministère des Communications ainsi que du ministère d'Etat chargé des Sciences et de la Technologie.
- Recherche industrielle, 1978-1979

Une description des travaux de recherche du Ministère, accompagnée d'une liste des gestionnaires du secteur du programme spatial et du secteur des recherches, ainsi que des budgets actuels et prévus.

PUBLICATION

LANGUAGE

- Communications and the Physically Handicapped:
A Literature Review with Some Policy Implications
by J.R. Lucyk. English or French
- Radio Reading Services for the Blind and Otherwise
Print Handicapped
by J.R. Lucyk. English or French
- Television and the Hearing Impaired
by J.R. Lucyk. English or French
- Modulation
Newsletter issued six times a year by the
Department of Communications. Bilingual
- In Search
Quarterly magazine of information and opinion
on communications. Bilingual

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Récentes publications du ministère des Communications

Les publications ci-après du ministère des Communications sont disponibles, mais en quantité limitée. Pour en obtenir un exemplaire, ou pour tout renseignement complémentaire, prière de communiquer avec le Service d'information, 300, rue Slater, Ottawa (Ontario), K1A 0C8, téléphone: (613) 995-8185.

PUBLICATIONS

Version disponible

- Télidon vous informe, no. 3

Ce bulletin fait état des dernières réalisations concernant Télidon, tant au Canada qu'à l'étranger.

Français ou

anglais

- Rapport du Groupe d'études sur l'industrie du film

et du vidéo dans la région de l'Atlantique

Co-présidents: Findlay MacDonald et Barney Dobbin.

Anglais

Le groupe d'études fut créé à la demande du Ministère.

Résumé français

Le Volume I suggère un modèle de télévision à péage

disponible

destiné à favoriser la création de nouveaux marchés

pour les productions canadiennes. Le Volume II fait

l'inventaire des ressources de la région de

l'Atlantique en matière de production.

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WORK IN DEPARTMENT OF COMMUNICATIONS LAB ENABLES
INTERNATIONAL TRIAL OF SATELLITE-AIDED SEARCH AND RESCUE

OTTAWA, August 27, 1979 -- Technology developed by the Department of Communications' (DOC) research centre and Canadian industry is playing a key role in the international program announced today to evaluate a satellite-aided search and rescue system (SARSAT).

The ability of the system to dramatically reduce rescue response times to accident sites gives it potential for saving countless lives.

Agencies of Canada, the U.S. and France have signed a three-party memorandum of understanding to co-operate in the program, which will see Canadian and French electronics packages put aboard U.S. NOAA weather satellites for a 15-month orbital demonstration and evaluation, due to begin in 1982. DOC negotiated Canada's arrangements with the U.S. National Aeronautics and Space Administration (NASA) and France's Centre National d'Etudes Spatiales (CNES) which led to the signing of the memorandum of understanding.

Negotiations for possible co-operation with the Soviet Union have started. The USSR is planning a similar system for its own satellites (COSPAS), with a view to establishing interoperability with the SARSAT system. Other countries have also expressed interest in co-operating in the program.

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The DOC Communications Research Centre (CRC) at Shirley Bay, just west of Ottawa, carried out successful proof-of-concept tests demonstrating the feasibility of the system in 1975 and 1976. CRC, which performs research and development in communications, radar and related technologies for the defence department, used a polar-orbiting amateur radio satellite and simulated emergency locator transmitter (ELT) signals to show that such a system could successfully pinpoint the location of crashes to within an accuracy of 10 to 20 kilometers, in a matter of minutes after the satellite first "heard" the crash alarm.

The concept depends on highly-precise orbital location information for the satellite and sophisticated ground computer-processing of information relayed from it.

The trial SARSAT system will have three basic elements: one or more NOAA satellites, with their add-on Canadian transponders and French receiver-processors; a network of ground stations to receive and process information and relay it to rescue coordination centres and, third, both operational and experimental emergency locator transmitters (ELTs) and marine emergency position-indicating radio beacons (EPIRBs) carried by aircraft and ships.

The satellites will "listen" on the 121.5 MHz, 243 MHz and 406 MHz emergency frequencies used by commercial and military ships and aircraft. Travelling in orbits over the poles, one satellite can cover the entire globe every 12 hours. (The more satellites in an operational system, the sooner an alarm would be detected.)

Within minutes after an initial alert is received, a fix, pinpointing the emergency site within 20 kilometers, is produced by ground computers. The speed with which this information appears is the result of the sophistication of the computer-processing involved. The information is flashed to rescue coordination centres, notifying them that an emergency has occurred and pinpointing the site. SARSAT works by measuring the varying "doppler shift" in the frequency of the ELT or EPIRB signal as the satellite approaches, passes over and then moves away from a crash or emergency site: the high speed of the satellite produces an apparent increase in the frequency of the ground signal the spacecraft receives while it approaches, with a similar decrease as it moves away from the source of the emergency signal.

If successful, this trial SARSAT project should eventually lead to establishment of an operational international satellite-aided search and rescue system that would save lives of crash or marine emergency victims, as well as time, fuel and other costs associated with air-sea rescues. It would limit risks to the lives of searchers and help minimize effects of disasters like major oil spills, by helping speed clean-up crews directly to the sites concerned.

Two Canadian companies are contributing to the project: SPAR Aerospace Limited, of Toronto, is building the transponders for the satellites. Canadian Astronautics Limited, of Ottawa, is developing and will supply the signal processor for the Canadian (ground) local user terminal. In addition, Canadian industry is expected to have a strong edge on the market for supply of complete local user terminals to both domestic and foreign agencies participating in the program.

For further information: J.M. Bryan
Media relations and public liaison
DOC-HQ
(613) 995-8185 or
Major Barry Frewer
(613) 992-0814, Defence Information.

NOTE TO EDITORS: A joint DOC/DND briefing on SARSAT is planned for 10 a.m. Tuesday, August 28, 1979, in the 12th floor information services conference room, North Tower, National Defence Headquarters.

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RECENT PUBLICATIONS OF THE DEPARTMENT OF COMMUNICATIONS

<u>Publication</u>	<u>Language</u>	<u>Available from</u>	<u>Price</u>
<p>✓ Department of Communications Annual Report 1977/78.</p> <p>Report on DOC activities during the fiscal year, with appendices giving various telecommunications statistics.</p>	Bilingual	Information Services, Department of Communications, 300 Slater Street, Ottawa, Ontario. K1A 0C8.	FREE
<p>K Spectrum Allocation Policy in the 406-960 MHz Frequency Band.</p> <p>Outlines policy for new allocations for the 406-960 MHz band, and presents major considerations in setting that policy.</p>	Bilingual	Information Services	FREE
<p>Spectrum Allocations in Canada Chart.</p> <p>Graphically depicts the allocation of radio frequencies in Canada.</p>	Bilingual	Information Services	FREE



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<u>Publication</u>	<u>Language</u>	<u>Available from</u>	<u>Price</u>
Satellite Earth Station Licensing. Policy paper on the review of licensing and ownership policies for earth stations operating in conjunction with Telesat satellites for services originating and terminating in Canada.	Bilingual	Information Services	FREE
Research and Development 1977/78. A review of communications research performed by and through DOC's Communications Research Centre, with an alphabetical list of research and development-related DOC activities. Current and proposed research budgets. An annual publication.	English, or French, 48 pp.	Information Services	FREE
1978 Report of the Communications Research Advisory Board. Recommendations to DOC on quality, management and relevance of its research program to departmental goals.	Bilingual	Information Services	FREE
Musat brochure. Description of a multi-purpose UHF communications satellite system, now in an advanced planning stage.	English or French, 6 pp.	Information Services	FREE
1977 Financial Statistics on Canadian Telecommunication Common Carriers. An annual publication.	English, 201 pp., or French, 204 pp.	Statistical Information Services, DOC, 8th floor, 300 Slater St., Ottawa, Ontario. K1A 0C8	FREE

<u>Publication</u>	<u>Language</u>	<u>Available from</u>	<u>Price</u>
Proposals by Canada, ITU World Administrative Conference (1979) for the Revision of the Radio Regulations. Limited quantity only.	English, 187 pp.; or French, 194 pp.	Director of WARC Activities, DOC, 17th floor, 300 Slater St., Ottawa, Ontario. K1A 0C8	FREE
Reports of the Rural Communications Program, studies on communications in rural Canada and the potential of new technologies. List available on request.		Data Networks and Rural Communications Program, DOC, 16th floor, 300 Slater St., Ottawa, Ontario. K1A 0C8	
For Better Television Reception. Pamphlet describes how to trace reception problems to receiving antenna, the TV set or external interference.	Bilingual	Information Services	FREE
How to Identify and Resolve Radio-TV Interference Problems.	English or French, 24 pp.	Information Services	FREE
Telecommunications and Canada. (Clyne Committee Report) 26 recommendations to government on future of telecommunications by an advisory committee.	English, 98 pp.; Cat. No. C021-5/1979; or French, 105 pp., Cat. No. C021-5/1979F	Supply and Services Canada, 45 Sacré Coeur Blvd., Hull, Québec K1A 0S7. It may also be carried by bookstores which are agents of the Government of Canada.	\$3.95 (\$4.75 outside Canada). Specify cat. no. & make cheque payable to Receiver General for Canada.
R Telidon brochure. Introduction to Telidon, a Canadian videotex system developed at the Communications Research Centre, its development, and possibilities for the future.	English or French, 22 pp.	Information Services	FREE

<u>Publication</u>	<u>Language</u>	<u>Available from</u>	<u>Price</u>
The Utilization of the Radio Spectrum in the Range 0.890 to 10.68 GHz. Discussion paper. Outlines the issues and major factors in the Department's current review of spectrum utilization policies for this range of microwave frequencies.	English or French	Information Services	FREE
Modulation Newsletter issued 6 times a year by DOC.	Bilingual	Information Services	FREE
In Search Quarterly magazine of information and opinion on communications. 1979, Vol. VI, issues 1, 2; 1978, Vol. V, issues 1-4; 1977, Vol. IV, issues 1-4.	Bilingual	Information Services	FREE

August, 1979

VF CANADA

Government
Publication

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FACT SHEET DOCUMENTATION

IMPROVING THE GENERAL RADIO SERVICE (CB) BAND IN CANADA

More than 600,000 Canadians hold licences for General Radio Service (CB) radios. This is over twice as many as just one year ago.

With GRS operators now outnumbering all other classes of Canadian radio users combined, the sudden upsurge in popularity of the band has brought problems. These difficulties include crowding of channels (the department increased the number available from 22 to 40, effective April 1st, 1977), interference with television reception and electronic home entertainment equipment and, in some cases, lack of respect for, or ignorance of, the regulations.

To alleviate these problems, improve general enjoyment and effectiveness of the band and keep pace with both growth and change in the nature of GRS use, the federal Department of Communications is implementing a package of regulatory, public education and administrative measures, announced June 17, 1977.

They include:

- Provision for temporary permits and call signs;
- A public awareness program;
- Amendments to the regulations under the Radio Act;
- Efforts to encourage design improvements in consumer electronic appliances affected by GRS transmissions;
- A new readiness to employ licence suspensions or prosecution against the small minority of GRS users who habitually and deliberately violate the regulations and
- Plans for more stringent technical specifications for GRS equipment.

TEMPORARY PERMITS

The department has produced a new brochure: "GENERAL RADIO SERVICE - INFORMATION AND LICENCE APPLICATION FORM." Besides providing basic information on procedures, regulations and departmental service to GRS operators, the brochure contains two tear-out forms. The first is a regular licence application, for the new purchaser of a GRS radio to fill out and mail in to the nearest DOC office, with a cheque for \$13.50 made payable to the "Receiver-General of Canada." The second is a temporary permit form, valid for 60 days from the date the regular licence application and cheque are mailed. The user retains this form, after certifying he has mailed the application. The user's temporary call sign is comprised of the prefix "XM," followed by the applicant's initials and postal code.



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... 2

propose également de rendre illégale la possession d'un amplificateur de ce genre par un titulaire de licence SRG et d'exiger que les titulaires permettent l'inspection de leur station par les inspecteurs du Ministère en tout temps raisonnable. Un titulaire qui refuserait ces inspections pourrait se voir retirer sa licence et/ou pourrait être sujet à des poursuites judiciaires.

TELEVISEURS ET AUTRES APPAREILS DE DIVERTISSEMENT AU FOYER

La majorité des appareils tels que téléviseurs, magnétophones, chaînes stéréophoniques et orgues électriques, n'ont pas été conçus pour fonctionner dans un fort champ électromagnétique. Ils n'ont pas été pourvus de la protection nécessaire pour fonctionner dans ce genre d'environnement radio particulier aux centres urbains. Bien que les spécifications pour les nouvelles radios SRG soient plus sévères, le nombre de plaintes au sujet du brouillage causé par des radios SRG aux autres appareils électroniques ne cesse de croître. Le Ministère essaie de persuader les fabricants d'appareils électroniques de diversifier au foyer d'apporter des améliorations simples, bien connues et efficaces, à la conception de leurs appareils, afin de les rendre moins sensibles au brouillage. Le Ministère désire également que les concessionnaires, les détaillants et leur personnel chargé du service, améliorent le service au client dans les cas de plaintes concernant des déficiences dues au brouillage.

POURSUITES

Une minorité d'usagers du SRG entretiennent de façon délibérée et répétée les règlements régissant le SRG au Canada. L'exploitation illégale d'amplificateurs externes de fréquences radio, l'exploitation d'une station du SRG sans licence, le refus de s'identifier et la production délibérée de brouillage sont des exemples d'infractions graves. Ces personnes nuisent aux autres utilisateurs du SRG. Le Ministère est prêt à avoir recours plus souvent aux suspensions de licence et aux poursuites judiciaires, si ces personnes continuent à passer outre aux demandes des autres utilisateurs ou des inspecteurs du MDC qui ont pour but de les ramener dans le droit chemin. Les ondes du SRG sont comme les routes. Elles sont un service public partagé qui n'est efficace que dans la mesure où chacun respecte les droits des autres.

APPAREILS ET NORMES TECHNIQUES

Le Ministère analyse les effets des normes techniques plus strictes relatives aux appareils SRG introduites plus tôt cette année et en promulguera de plus strictes encore au fur et à mesure des besoins. Le Ministère étudie également d'autres possibilités, telles que de nouvelles bandes de fréquences qui seraient allouées à de nouvelles classes SRG si besoin est à l'avenir.

Copies of the licence brochure are available from DOC district and regional offices across Canada, from retailers and from:

Information Branch,
Department of Communications,
300 Slater Street,
Ottawa, K1A 0C8.

PUBLIC EDUCATION PROGRAM:

The department is attempting to help better educate both current and prospective GRS operators in the proper and responsible use of their radios. Particularly important are: the need for users to understand why licences and station identification are required, the basic regulations and reasons for them, causes and cures for television interference and the rights of all involved in an interference investigation. Efforts are also being made to reach the non CB-using general public, to help it cope with such problems as interference with audio equipment.

Specific aspects of the public awareness program include:

- Production of a 16 mm, 13 1/2-minute color film, scheduled for late-autumn release.
- A program of cross-Canada radio, TV and newspaper appearances by DOC personnel.
- An improved version of the GENERAL RADIO SERVICE HANDBOOK, with expanded sections on regulations, installation and operating, to be provided to users with all new licences and licence renewals.
- Advice on how to solve interference problems involving TV sets and other home entertainment equipment and install TV antennas to minimize the likelihood of GRS interference, while maximizing good television reception.
- Exhibits

REGULATORY CHANGES

The department is proposing to require sellers of external radio frequency amplifiers, capable of use in the GRS band, to provide it with a documentary record of each sale, including a signed declaration from the purchaser to the effect that he or she realizes illegal use of the device could bring a fine of \$1,000 or six months in jail. It is also proposed to make possession of such an amplifier by a GRS licensee illegal, and to require that licensees permit inspection of their stations by departmental inspectors at all reasonable times. Failure to permit such inspections would be grounds for licence suspension, revocation and/or prosecution.

temporaire, valable pendant 60 jours à partir de la date à laquelle le formulaire de demande de licence ordinaire et le chèque sont mis à la poste. L'utilisateur conserve cette formule après avoir certifié qu'il a mis sa demande à la poste. L'indicateur d'appel de l'utilisateur se compose du préfixe "XM" suivi des initiales du requérant et de son code postal.

Ce dépliant est disponible aux bureaux régionaux et de district du MDC, chez les détaillants, et à la

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PROGRAMME D'INFORMATION DU PUBLIC

Le Ministère met actuellement au point un programme d'information destiné aux utilisateurs actuels et éventuels du SRG afin de les convaincre de faire un meilleur usage de la radio SRG. Ce programme a pour objectifs de: faire comprendre aux utilisateurs la nécessité des licences et des identifications de stations, exposer les règlements fondamentaux et leur raison d'être, ainsi que les causes de brouillage et les moyens de les éliminer, et enfin expliquer les droits de tous ceux qui sont concernés lorsqu'une enquête sur le brouillage doit être menée. De plus le programme propose d'aider le public à résoudre des problèmes comme celui du brouillage causé au matériel audio.

Voici quelques aspects précis du programme d'information:

- la réalisation d'un film couleur de 16 mm, d'une durée de 13 min, 1/2, qui sera présentée à l'automne;
- la mise en oeuvre d'un programme d'information par le truchement de la presse écrite et des média électroniques auquel participera le personnel du MDC dans tout le Canada;
- l'élaboration d'une version améliorée du GUIDE DU SERVICE RADIO GENERAL, qui comprendra plus de détails sur les règlements, sur l'installation et le fonctionnement d'une station du SRG. Le guide sera distribué aux utilisateurs qui présenteront une première demande ou un renouvellement de licence;
- des conseils pour l'élimination du brouillage que subissent la télévision et les autres appareils de divertissement au foyer ainsi que pour l'installation de l'antenne de télévision afin de réduire le brouillage causé par la radio SRG et d'améliorer la qualité de l'image captée.
- la tenue d'expositions qui permettront au public de rencontrer des représentants du Ministère.

MODIFICATIONS DES RÈGLEMENTS

Le Ministère propose actuellement de demander aux vendeurs d'amplificateurs externes de fréquences radio de lui fournir un dossier sur chaque vente d'amplificateur qui pourrait se prêter à une utilisation illégale avec un appareil SRG. Le dossier devra inclure une déclaration signée par l'acheteur, comme quoi il est au courant que l'utilisation d'un amplificateur sur une radio SRG peut lui encourir une amende de \$1 000 ou six mois de prison. Le Ministère

TELEVISION SETS AND OTHER HOME ENTERTAINMENT EQUIPMENT

Today's television set was not designed to operate in the kind of electromagnetic (radio) environment the unexpected GRS boom has brought to most residential and small town neighbourhoods in Canada. While specifications for new GRS radios have been tightened up, complaints about interference with TV reception involving GRS transmissions are rising sharply. Other electronic (audio) devices, such as tape recorders, stereo record and music systems and electronic organs, are also prone to disturbance if subjected to the strong electromagnetic field created by an adjacent radio transmitter of almost any kind. The department is trying to persuade manufacturers of such consumer electronic devices to incorporate simple, well-known and effective design improvements in their products at the point of manufacture, to render them less susceptible to radio interference. It also wants distributors, retailers and their service personnel to improve performance in servicing customer complaints about interference-related deficiencies. The department will also provide guidance to GRS operators on how to install their stations in a manner that will minimize their chances of causing interference.

PROSECUTIONS:

A small minority of GRS users deliberately and repeatedly violate regulations governing the band in Canada. Serious offences include operation with illegal external radio power amplifiers, unlicensed operation, refusal to identify and creation of deliberate interference. Such people can ruin enjoyment of the band for many users. The department is prepared to make greater use of licence suspension and prosecution, if such persons continue to disregard requests by other users and DOC inspectors to bring their activities into line. The airwaves are like a highway: they are a public facility which must be shared, and which only works effectively when all users respect the rights of others.

EQUIPMENT AND STANDARDS:

The department is monitoring the effects of the tighter GRS equipment standards introduced earlier this year and will promulgate still tighter standards, as needs arise. Studies are also in progress in the area of possible new frequency band(s) for new classes of GRS service which might become necessary in the future.

Ref: J.M. Bryan
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September, 1977

FACT SHEET DOCUMENTATION



L'AMÉLIORATION DU SERVICE RADIO GÉNÉRAL (SRG) AU CANADA

Le nombre de détenteurs de licences du Service radio général (SRG), communément appelé CB, se chiffre actuellement à plus de 600 000, ce qui représente deux fois plus de SRGistes autorisés que l'an dernier.

Les SRGistes sont maintenant plus nombreux que toutes les autres classes d'utilisateurs radio réunies. Cette soudaine explosion de popularité de la bande SRG cause certains problèmes: surcharge des canaux, (à laquelle le Ministère a tenté d'obvier en augmentant de 22 à 40 le nombre de canaux disponibles, depuis le 1^{er} avril 1977), brouillage à la réception des téléviseurs et des appareils électroniques de divertissement au foyer et, dans certains cas, infractions aux règlements ou ignorance des règlements.

Afin d'atténuer ces difficultés, d'améliorer l'efficacité de cette bande et l'agrement que l'on retire de son utilisation, de soutenir le rythme de croissance et de rester au courant des modifications survenues quant à la nature et à l'utilisation du SRG, le ministère fédéral des Communications prend actuellement des mesures ayant trait aux règlements, à l'information du public et à l'administration. Les mesures annoncées le 17 juin comprennent:

- la délivrance de permis temporaires et d'indicateurs d'appel;
- un programme d'information du public;
- des modifications aux règlements d'exécution de la Loi sur la radio;
- des efforts en vue d'encourager l'amélioration de la conception des appareils électroniques affectés par les radio SRG;
- une volonté nouvelle de recourir aux suspensions de licences ou aux poursuites judiciaires contre la minorité des SRGistes qui enfreignent de façon habituelle et délibérée les règlements;
- des projets de spécifications techniques plus strictes pour les appareils SRG.

PERMIS TEMPORAIRES

Le Ministère vient de publier un nouveau dépliant intitulé "Service radio général: informations et demande de licence". Il fournit des renseignements de base sur les procédures, règlements et services offerts par le Ministère aux SRGistes, et inclut deux formulaires à détacher. Le premier constitue une demande de licence ordinaire, que l'acheteur d'une radio SRG devra remplir et poster au bureau du MDC le plus près, accompagné d'un chèque de \$13,50 payable au Receveur général du Canada. Le deuxième constitue une demande de permis



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